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## Constraints encountered by turmeric growers in utilization of turmeric steam pressure cooker

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#### Abstract

Turmeric is referred as Indian saffron scientifically known as *Curcuma longa* and commonly called as *haldi*. The research study was conducted in Sangli district of Maharashtra, India during 2020, with a sample size of 140, from two tahsils namely Walwa and Miraj with the objectives viz. to study the personal, socio-economic, communicational and psychological characteristics of turmeric growers, to study the constraints faced by turmeric growers using turmeric steam pressure cooker and to obtain their suggestions to overcome it and to find out the relationship between selected characteristics with perception of turmeric growers. An Ex-post facto design of social research was used for the present investigation. The results revealed that, majority of the turmeric growers using *University recommended Turmeric Steam Pressure Cooker* under the study were found to be middle age (36 to 56 years), secondary (up to 10 Std.) in education, medium family size, small land holding and moderate farming experience, medium income, medium level of marketing behavior, medium extension contract, medium level of Innovativeness and medium level of Scientific orientation towards *University recommended Turmeric Steam Pressure Cooker*. The constraints expressed by them were, the turmeric steam pressure cooker machine which is very heavy (55.71%), price of the turmeric steam pressure cooker is high (51.42%), construction of turmeric steam pressure cooker is complex (43.33%), timely availability of the turmeric steam pressure cooker is less during requirement (30.71%), tractor is not available during each time for transportation (27.14%), lack of knowledge about the subsidies for purchase of turmeric steam pressure cooker (22.14). The suggestions made by them were, TSPC machine should be less complex and lightweight (50.71%), price should be reasonable to purchase and affordable rent (48.57%), to avail on time it is require to increase numbers of TSPC in village (30%) make the changes in TSPC in order to increase its portability (26.66) and farmers awareness about the government subsidies need to be increased (17.50%). The selected variables viz., Education, Family Size, Land Holding, Annual Income, Farming Experience, Marketing Behaviour, Innovativeness, Scientific Orientation, Extension Contact, Area under turmeric, Varietal Preference were in positive and significant relationship with perception. Whereas, the variable age had negative and non-significant relationship with the perception.

**Keywords:** constraints of turmeric growers, turmeric steam pressure cooker, profile of turmeric growers, suggestions of turmeric growers

#### Introduction

India has been predominantly an agricultural country and the major development is ongoing in the field of Horticulture. The turmeric and other spices have high demand in the world. Hence, it is true that progress of India is very much dependent on the export of the quality turmeric powder and it requires the well developed good grade of turmeric, and it only possible after the proper way of turmeric curing. The boiling process should be proper and efficient to conserve the characteristics of the turmeric. It is possible with the University Recommended Turmeric Steam Pressure Cooker. The increased quality production depends upon the number of factor of which, boiling play an important role. By keeping in view the present study was conducted with the objectives viz. to study the personal, socio-economic, communicational and psychological characteristics of turmeric growers, to study the constraints faced by turmeric growers using turmeric steam pressure cooker and to obtain their suggestions to overcome it and to find out the relationship between selected characteristics with perception of turmeric growers.

#### Methodology

The Present study was conducted in the year 2020 at Sangli district of Maharashtra, India. Two tahsils namely Walwa and Miraj as it has highest area under turmeric cultivation were selected. Two villages were selected from both tahsils.

For the present study 140 respondents were selected by simple random sampling procedure. Here the researcher is having no control over the independent variables which have already occurred. Therefore, Ex-post facto design of social research was used for the present investigation. In the light of objectives set for study, one dependent variable was selected for the study i.e. perception. The variables age, education, family size, land holding, annual income, farming experience, marketing behaviour, innovativeness, scientific orientation, extension contact, area under turmeric, varietal preference were the independent variables. A well-structured interview schedule designed for study was used for collecting the data from respondents through personal interview method. The data collected were edited, tabulated and analyzed using statistical measures such as frequency, percentage, range, mean, standard deviation and coefficient of correlation.

## Results and Discussions

### Personal, Socio-economic, Communicational and Psychological Characteristics of Turmeric Growers

It is found from Table 1.that, majority of the turmeric growers using *University recommended Turmeric Steam Pressure Cooker* under to study were found to be middle age (36 to 56 years), secondary (up to 10 std.) in education, medium family size, small land holding and moderate farming experience. It was also found that majority of the respondents had medium income, medium level of Marketing behaviour, medium extension contract, medium level of innovativeness and medium level of scientific orientation towards *University recommended Turmeric Steam Pressure Cooker*. These findings are in line with the findings of Bhati *et al.* (2014)<sup>[1]</sup>, Deeksha and Sachan (2016)<sup>[2]</sup>.

**Table 1:** Personal, Socio-economic, Communicational and Psychological Characteristics of Turmeric Growers

Sl. No.	Variables	Category	Respondents (n=140)	
			Frequency	Percentage
1.	Age	Young (Up to 35 years)	43	30.71
		Middle (36 to 56 years)	81	57.85
		Old (57 and above years)	16	11.42
2.	Education	Illiterate	15	10.71
		Primary Education(1 <sup>st</sup> to 4 <sup>th</sup> Std)	24	17.14
		Middle school (5 <sup>th</sup> to 7 <sup>th</sup> Std)	26	18.57
		Secondary education (8 <sup>th</sup> to 10 <sup>th</sup> Std)	40	28.57
		Higher Secondary Education (11 <sup>th</sup> to 12 <sup>th</sup> Std)	22	15.71
3.	Size of family	Graduate and Post graduate (above 12 <sup>th</sup> Std)	13	9.28
		Small (Up to 6 Members)	65	46.42
		Medium (7 to 10 Members)	58	41.42
4.	Land Holding	Large (11 and above Members)	17	12.14
		Marginal (Upto 1 ha)	9	6.42
		Small (1.01 to 2 ha.)	59	42.14
		Semi-medium (2.01 to 4 ha.)	51	36.42
		Medium (4.01 to 10 ha.)	21	15
5.	Annual Income	Large (10.01 ha. and above)	0	0.00
		Low (Upto Rs. 2,86,667)	65	46.42
		Medium (Rs. 2,86,668 to 5,03,334)	54	38.57
6.	Farming Experience	High (Rs. 5,03,335 and above)	21	15
		Less (Upto 20 Years)	89	63.57
		Moderate (21 to 35 Years)	46	32.85
7.	Marketing Behaviour	More (36 and above Years)	05	3.57
		Low ( up to 15 score)	20	14.28
		Medium ( 16 to 19 score)	77	55
8.	Innovativeness	High ( Above 20 score)	43	30.71
		Low ( Up to 15 score)	33	23.57
		Medium ( 16 to 19 score)	85	60.71
9.	Scientific orientation	High ( Above 20 score)	22	15.71
		Low ( Up to 16 score)	34	24.28
		Medium ( 17 to 21 score)	90	64.28
10.	Extension contact	High ( Above 22 score)	16	11.42
		Low (Upto 5 score)	30	21.42
		Medium (6 to 8 score)	74	52.85
11.	Area under Turmeric	High (9 and above score)	36	25.71
		Low (Up to 2 ha )	113	80.71
		Medium (2.1ha to 3ha )	18	12.45
		High ( 3.1ha and above)	9	6.42

## Constraints encountered by turmeric growers in utilization of Turmeric Steam Pressure Cooker

**Table 2:** Distribution of respondents according to the constraints encountered

Sr. No.	Constraints	Respondents (n= 140)	Rank
1.	TSPC machine is very heavy.	78 (55.71)	I
2.	Price of the TSPC is high.	72 (51.42)	II
3.	Construction of TSPC is complex.	52 (43.33)	III
4.	Timely availability of the TSPC is less during requirement.	43 (30.71)	IV
5.	Tractor is not available during each time for transportation.	38 (27.14)	V
6.	Lack of knowledge about the subsidies for purchase of TSPC.	31 (22.14)	VI
7.	All turmeric growers not using TSPC.	28 (20)	VII

(Figure in parentheses indicate the percentage)

The data presented in Table 2. revealed that respondents were faced constraints viz. TSPC machine which is very heavy (55.71%), price of the TSPC is high (51.42%), construction of TSPC is complex (43.33%), timely availability of the TSPC is less during requirement (30.71%) tractor is not available during each time for transportation (27.14%), lack of

knowledge about the subsidies for purchase of TSPC (22.14%) and all turmeric growers not using TSPC(20%). These problems are similar to Bidwe (2017).

### Suggestions made by the by turmeric growers in utilization of Turmeric Steam Pressure Cooker

**Table 3:** Distribution of respondents according to suggestions given by them

Sr. No.	Suggestions	Respondents (n=140)	Rank
1.	TSPC machine should be less complex and lightweight	71 (50.71)	I
2.	Price should be reasonable to purchase and affordable rent	68 (48.57)	II
3.	To avail on time it is require to increase numbers of TSPC in village	42 (30)	III
4.	Make the changes in TSPC in order to increase its portability	32 (26.66)	IV
5.	Farmers awareness about the government subsidies need to be increased.	18 (12.85)	V

(Figure in parentheses indicate the percentage)

The data presented in Table 3. indicated that the respondents suggested that TSPC machine should be less complex and lightweight (50.71%), Price should be reasonable to purchase and affordable rent (48.57%), to avail on time it is require to increase numbers of TSPC in village (30%) make the changes in TSPC in order to increase its portability (26.66%) and farmers awareness about the government subsidies need to be increased (17.50%). This suggestions are similar to Patil (2017).

**Table 4:** Relationship between personal, socio-economic, communicational and psychological characteristics of turmeric growers with their Perception

Sr. No.	Independent variables	Correlation coefficient (r)
1.	Age	-0.112 <sup>NS</sup>
2.	Education	0.314**
3.	Size of family	0.571**
4.	Size of land holding	0.247**
5.	Annual income	0.326**
6.	Experience in turmeric cultivation	0.279**
7.	Marketing behavior	0.198*
8.	Innovativeness	0.202**
9.	Scientific orientation	0.341**
10.	Extension contact	0.299**
11.	Area under turmeric	0.175*

\*\* = Significant at 1 per cent level of probability

\* = Significant at 5 per cent level of probability

It is concluded from Table 4. that, the selected variables viz., Education, Family Size, Land Holding, Annual Income, Farming Experience, Marketing Behaviour, Innovativeness, Scientific Orientation, Extension Contact, Area under turmeric, Varietal Preference were in positive and significant relationship with perception. Whereas, the variable age had negative and non-significant relationship with the perception. These findings are in line with those of Suder and Ramkrishna

(2013)<sup>[6]</sup>, Dobariya, *et al.* (2017)<sup>[4]</sup>.

### Conclusions

It was concluded that majority of the turmeric growers had moderately favourable to highly favourable perception towards University Recommended Steam Pressure Cooker. Furthermore, majority of them were satisfied with the University Recommended Steam Pressure Cooker and urge to continue adoption for the turmeric boiling process while turmeric processing. Therefore, turmeric growers may use it for the future use to produce more quality production from turmeric cultivation.

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